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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,143	03/02/2004	Tadahiro Kegasawa	Q80197	3000

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EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,143

Applicant(s)

KEGASAWA ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/2/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: In line 4, the phrase "jetting a gas permeable" is confusing. It is suggested this be changed to --jetting a gas which is permeable--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Turi(U.S. Patent 5,009,831).

Turi discloses an apparatus which bonds a film and a support together via a nip roller(15) and a cooled roller(10). A gas jet(30,32) jets a gas toward the cooling roll near the nip point.(Figure 1) This device is capable of jetting a gas which is permeable through the film, and the device is capable of forming a thermoplastic film. It is noted that the actual gas and plastic are part of the material worked upon and therefore are no a part of the claim. The gas jet is directed toward the cooling roll. It is noted that the claim does not require the jet to be located such that the gas jetting from it contacts the cooling roll.

Regarding claim 9, the gas jet of Turi is capable of blowing the gas at a speed of 1 m/s or higher since this appears to be a typical flow rate to a gas jet.

4. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Komai et al.(U.S. Patent 4,917,844).

Komai et al. discloses an apparatus which bonds a film and a support together via a nip roller(5) and a cooled roller(6). A gas jet(8) jets a gas toward the cooling roll near the nip point which is permeable with respect to the thermoplastic film.(Figure 1; Abstract) It is noted that the actual gas and plastic are part of the material worked upon and therefore carry little, if any, patentable weight,.

Regarding claim 9, the gas jet of Komai et al. is capable of blowing the gas at a speed of 1 m/s or higher since this appears to be a typical flow rate to a gas jet. If the gas jet of Komai et al. is 1 mm across, the reference discloses a flow rate of 2 m/s.(Col. 3, ll. 40-43)

5. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Wade(U.S. Patent 3,470,055).

Wade discloses an apparatus which bonds a film and a support together via a nip roller(5) and a cooled roller(6). A steam knife(gas jet;25) jets a gas toward the cooling roll near the nip point.(Figure) This device is capable of jetting a gas which is permeable through the film, and the device is capable of forming a thermoplastic film. It is noted that the actual gas and plastic are part of the material worked upon and therefore are no a part of the claim.

Regarding claim 9, the gas jet of Wade is capable of blowing the gas at a speed of 1 m/s or higher since this appears to be a typical flow rate to a gas jet.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wade as applied to claim 8 above.

Wade discloses the steam knife is perpendicular to the cooling roll(Figure) but does not disclose the distance between the steam knife and the cooling roll. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the steam knife very close, such as within 50 mm, of the roll as otherwise the steam would be wasted, humidifying air in a location that the steam was not required, and since the closer the steam knife is to the cooling roll, the better the control of the steam distribution.

Regarding claims 9 and 11, while Wade does not disclose the speed of the steam, one in the art would appreciate that the device would be capable of creating a flow velocity of 1 m/s or higher since this appears to be a typical flow rate for gas jets. In paragraph 5, it is noted that the device is indicated to be capable of providing the gas at the recited speed. This is a backup rejection in the event that evidence is provided to show that the gas jet is not capable of having the recited speed. In any event, it would

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have been obvious to one of ordinary skill in the art at the time the invention was made to have the gas jet capable of flow rates of 1 m/s as these appear to be conventional gas flow rates for gas jets so that the gas blankets the desired area.

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komai et al. as applied to claim 8 above, and further in view of Wade.

Komai et al. does not disclose the gas jet is perpendicular to the cooling roll, but rather shows it at an angle to the cooling roll. Wade discloses the steam knife is perpendicular to the cooling roll(Figure) but does not disclose the distance between the steam knife and the cooling roll. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the gas jet of Komai et al. perpendicular to the cooling roll since Wade shows it is known in general in the extruding and bonding arts that fluid applied to the cooling roll can be applied perpendicular to the cooling roll and to have the gas jet very close, such as within 50 mm, of the roll as otherwise the gas would be wasted, and since the closer the gas jet is to the cooling roll, the better the control of the gas distribution.

Regarding claims 9 and 11, while Wade does not disclose the speed of the steam, one in the art would appreciate that the device would be capable of creating a flow velocity of 1 m/s or higher. Komai et al. discloses a gas flow rate of 36 l/min, which for a length of 300 mm, translates into a flow rate of 2 m*mm/s, i.e. 2 m/s if the width of the gas jet opening is 1 mm, 1 m/s if it is 2 mm wide, etc.(Col. 3, ll. 40-43) In paragraph 4, it is noted that the device is indicated to be capable of providing the gas at the recited speed. This is a backup rejection in the event that evidence is provided to show that the

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gas jet is not capable of having the recited speed. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the gas jet capable of flow rates of 1 m/s as these appear to be conventional gas flow rates for gas jets so that the gas blankets the desired area.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJM



SAM CHUAN YAO
PRIMARY EXAMINER